

5 WE CLAIM:

[0071] 1. A method of underwriting insurance by taking into account technologies that militate against loss comprising the steps of: identifying a technology that mitigates a risk associated with a property loss for which an insured purchases insurance; and providing an
10 insurance policy that accounts for the diminution of risk.

[0072] 2. A method of underwriting insurance according to Claim 1, including the further step of advising the prospective insured to obtain the technology.

15 [0073] 3. A method of underwriting insurance according to Claim 1, including the further step of advising the prospective insured about the cost benefits of obtaining the technology.

[0074] 4. A method of underwriting insurance according to Claim 1, including the further step of providing a specification of best practices to mitigate losses through the application of a
20 technology.

[0075] 5. A method for underwriting insurance by taking into account technologies that militate against loss comprising the steps of: maintaining a database identifying a plurality of technologies that reduce risk of loss to an associated building structure; identifying a building
25 structure comparable to the associated building structure, that requires insurance; calculating the risk of loss related to the building structure; and accounting for the risk reduction resulting from

5 incorporation of at least one technology into the building structure; and creating an insurance policy for the structure based upon the incorporated risk reduction technology.

[0076] 6. A method of underwriting insurance according to Claim 5, including the further step of polling the insured interest to determine its compliance with incorporation of at least one
10 technology into the building structure.

[0077] 7. The system for underwriting insurance by taking into account technologies that militate against loss comprising: a means for classifying risk input data, said means include a processor having one or more inputs to receive one or more data structures representing a first
15 plurality of unmitigated underwriting risks pertaining to an identified building structure and a second plurality of mitigated underwriting risks based on the assumption one or more specified technologies will be employed in the building structure, a logical association between the first and second data structure representing the incorporation of a technology that aides in the reduction of a casualty property loss for the building under consideration for insurance wherein,
20 each data structure combined forms a weighted difference between the first unmitigated risk and the second mitigated risk, and wherein a plurality of weighted differences represent an underwriting class for the unmitigated risk/ mitigated risk combination to generate a minimized risk for a building structure under consideration.

5 **[0078]** 8. A system for underwriting insurance by taking into account technologies that mitigate against loss comprising: one or more decision trees, each branch of which produces a weight representing an underwriting risk specific to an insurance coverage and premium.

10 **[0079]** 9. The system as provided for in Claim 8, wherein a continuous function is utilized to assign the weight to produce risk values representing underwriting choices, exclusions, and premium charges to an insurance policy for combinations of property and risk reduction technology.

15 **[0080]** 10. A computer system for evaluating the insurability of a potentially insurable risk, comprising:

a means providing first and second data bases; a means for storing information relating to the potentially insurable risk in the first data base; a means for storing information relating to the potentially insurable risk mitigated by a technology in the second data base; a means for evaluating the information stored in the first data and second data base and for identifying

20 additional elements of information required for evaluating the potentially insurable risk, including: means for assigning a weight to at least one of the selected elements of information from the first data base on the basis of a relationship between the elements of information in the first data base and corresponding elements of information in the second data base;

a means for associating the weights to calculate at least one risk classification for the potentially

25 insurable risk from the weights assigned to the elements of information from the first data base; and a means for displaying at least one at least one risk classification.

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[0081] 11. The computer system according to Claim 10 wherein the means for assigning a weight includes one or more expert systems.

[0082] 12. A computer system for managing insurance based upon technology utilized in
10 a structure comprising: a plurality of workstation processor means for managing one or more insurance accounts; a database processor means for storing, at least one element of data which depicts technology that mitigates insurance risk, said database processor means being interconnected and responsive to each of said plurality of workstation processor means; a file processor means for managing at least one element of data which represents technology that
15 mitigates insurance risk, said file processor means being interconnected and responsive to each of said plurality of workstation processor means; an output means for producing documents in at least one of text, graphics, and electronic transfer mode, said output means being interconnected and responsive to each of said plurality of said workstation processor means; and, an input means for receiving at least one input, of which represents technology that mitigates insurance risk, into
20 said computer system, said input means being interconnected and responsive to each of said plurality of workstation processor means; and, a software means for configuring each of said plurality of workstation processor means, database processor means, file processor means, output means, and input means.

5 **[0083]** 13. The computer system for managing insurance according to Claim 12, wherein
the output means is a device to print an insurance policy based on an insurable interest.

[0084] 14. The computer system for managing insurance according to Claim 8, wherein
the output means is a device to print a specification of best practices for loss mitigation based on
10 the subject building.

[0085] 15. A method of underwriting insurance comprising the steps of : maintaining a
data base identifying risk mitigation technology and corresponding loss mitigation values; and
scanning periodically an insurable interest to identify sensors and corresponding sensor data
15 associated with risk mitigation technology; and comparing sensor data to the risk mitigation
technology and corresponding loss mitigation values; and controlling a printing device to print
an insurance policy.

5 **[0086]** 16. A system for identifying matches between risk mitigation technology installed
at an insurable interest and a risk mitigation technology listed in an insurance policy comprising:
a database storage means; a processor programmed to: maintain the database storage means
wherein is identified installed risk mitigation technology; audit the insurable interest to identify
sensors and corresponding sensor data associated with installed risk mitigation technology; and
10 compare corresponding data to identified installed risk mitigation technology stored in the
database storage means; and control a printing device to print a report on the operational status of
the identified sensors.

[0087] 17. A computer readable medium having stored thereon one or more data
15 structure selected from the group comprising of: a first field containing data representing an
indication of the conformity to a prescribed level of risk due to the use of risk mitigation
technology; and a second field containing data representing the address of an insurable interest
associated with said first field data; and at least one field containing data representing a premium
adjustment related to the utilization of the risk mitigation technology.

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 [0088] 18. A neural network comprising: an input layer, an output layer, and at least one
hidden layer, operable to produce outputs from said output layer when inputs are supplied to the
input layer of said neural network, said neural network having been previously trained in
accordance with training exemplars of loss mitigation due to the incorporation of certain
25 technologies.

5 **[0089]** 19. A method for performing risk analysis utilizing a neural network, the method comprising the steps of: collecting data on a first combination of technologies; and applying the data to an input layer of the network; and training the network by optimizing weighted connections of the network to an underwriting criteria that decreases the risk of an insurable interest such that weights are determined; and applying a second combination of technologies to
10 an input layer of the network; and classifying the second combination of technologies into ordinal values and categorical values, such that the classification represents a premium estimation.

[0090] 20. A method for classifying risk reduction technology comprising the steps of:
15 storing data representing a training set in a memory, the data including a multiplicity of entries each having a plurality of attributes, such as a type of construction and a combinations of technologies; and building a decision tree based on the attributes of the training set entries thereby classifying the training set by.

20 **[0091]** 21. The method for classifying risk reduction technology as in Claim 20, wherein a further step includes classifying an underwriting risk using the decision tree based on the attributes of the training set.